Remarks

Claims 1, 2, 4-18 and 40 are pending in this application. Of these claims, claims 6-18 and 40 are withdrawn from consideration. Claim 3 has been canceled in the instantly proffered amendment.

Claim 1 had been objected to on an informality which has been corrected.

Claims 1-5 have been rejected as failing to comply with 35 U.S.C. 112 first paragraph . The Examiner has found the specification is silent regarding a nonwoven polyphenylsulfone substrate and a nonfabric polyphenylsulfone substrate.

Claim 1 has been amended to recite that the polyphenylsulfone is a thermoplastic material. More specifically it is a nonwoven thermoplastic polyphenylsulfone substrate material. The polyphenylsulfone is described and illustrated in paragraph 0024 of the specification. It is a known material, for the applications intended use in addition to translucency and fire retardant properties, it must be capable of being post processed for multiple uses in the interior of an aircraft (see paragraph 0002, 0006, 0014, etc.) by thermoforming, bending, cutting and the like. The drawings Figs 1-14 clearly show intended applications. It is patently clear that the substrate is not a woven material or a fabric. (see enclosed dictionary definitions).

The specification is addressed to the skilled in the art and clearly conveys to them that the applicants have invented the subject matter as claimed. In re *Smith and Hubin*, 481 F.2d 910, 178 USPQ 620 (C.C.P.A. 1973). The test for sufficiency of support is whether the disclosure of the application reasonably conveys to the artisans that the inventors had possession at that time of the later claimed subject matter. *Vas-cath Inc., v. Mahurkar*, 935 F.2d 1555 19 USPQ2d 1111(Fed. Cir. 1991).

The rejection should be withdrawn as being inappropriate in this case.

The rejection under 35 U.S.C. 112 second paragraph similarly should be withdrawn. In this regard, the Examiner recites that "by definition a nonwoven material is a fabric." This is not the case as is clear from the enclosed definition and from the fact that many nonwoven products are produced from films and extruded plastics, for example rubber gloves, where fibers - the basic elements of fabrics and textiles - are not involved.

The rejection of the claims (1, 2, 4 and 5) under 35 U.S.C. 102(e) is no longer maintainable by virtue of the incorporation of the subject matter of claim 3 into claim 1, i.e., the specifically identified glass fibers.

The rejection of the claims under 35 U.S.C. 103(a) as obvious over Tsotsis is not believed justified. The Tsotsis products are composite materials for producing preforms, i.e., multi-axial fabrics comprising reinforcing layers of unidirectional fiber with nonwoven interlayers (spunbonded, spun laced, or mesh fabrics) (see below) as described "interlayers 6 made of thermoplastic fibers are disposed between reinforcing fabric layers 2…" (paragraph [0037]).

It is clear from the Tsotsis reference that the fiber-reinforced composite materials are made by molding a preform and infusing the preform with a thermosetting resin in a number of liquid-molding processes. Liquid-molding processes that may be used in the invention include, without limitation, vacuum-assisted resin transfer molding (VARTM), in which resin is infused into the preform using a vacuum-generated pressure differential. Another method is resin transfer molding (RTM), wherein resin is infused under pressure into the preform in a closed mold. A third method is resin film infusion (RFI), wherein a

semi-solid resin is placed underneath or on top of the preform, appropriate tooling is located on the part, the part is bagged and then placed in an autoclave to melt and infuse the resin into the preform.

The resin is typically an epoxy resin. In a preferred embodiment, the unidirectional fibers are made of carbon fibers. Other examples of unidirectional fibers include, without limitation, glass fibers and mineral fibers. Such layers of unidirectional fibers are usually prepared by a laminating process in which unidirectional carbon fibers are taken from a creel containing multiple spools of fiber that are spread to the desired width and then melt-bonded to a thermoplastic interlayer under heat and pressure. The thermoplastic fibers of the interlayer may be selected from the group consisting of polyamide, polyimide, polyamideimide, polyester, polybutadiene, polyurethane, polypropylene, polyetherimide, polysulfone, polyethersulfone, polyphenylsulfone, polyphenylene sulfide, polyetherketone, polyethertherketone, polyarylamide, polyketone, polyphthalamide, polyphenylenether, polybutylene terephthalate and polyethylene terephthalate.

There is no teaching or suggestion in Tsotsis to use the glass fibers and to embed them in a thermoplastic polyphenylsulfone material as taught in the invention.

The rejection should be withdrawn.

It is submitted that all of the claims under consideration are in condition for allowance and notification to this effect is respectfully requested.

Respectfully submitted,

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